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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/541,676

07/08/2005

Dirk Reissenweber

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07/08/2011

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WASHINGTON, DC 20005

EXAMINER

ROLLAND, ALEX A

ART UNIT

PAPER NUMBER

1712

NOTIFICATION DATE

DELIVERY MODE

07/08/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/541,676	<b>Applicant(s)</b> REISSENWEBER, DIRK	
	<b>Examiner</b> ALEX ROLLAND	<b>Art Unit</b> 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 19-29 and 31-55 is/are pending in the application.
- 4a) Of the above claim(s) 19-28,37,38 and 41-46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29,31-36,39,40 and 47-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Claims 19-28, 37-38, 41-46 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 9/22/08.

### ***Claim Objections***

2. Objection to claim 32 is withdrawn in view of claim amendments filed 4/21/11.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Rejection of claims 29, 31, 47, 53, and 54 under 35 U.S.C. 112, second paragraph, is withdrawn in view of claim amendments filed 4/21/11.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 29, 39-40, 49-51, 54-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2850999 to Kaplan in view of US 6555615 to Van Rheen.

Kaplan teaches a method for making coated, embossed metal sheets (col. 1, lines 15-19) from rust resistant metals such as aluminum (col. 1, line 22) used for decorative or structural purposes (col. 1, lines 17-19). A flat metal sheet (col. 3, lines 21-30) is coated with one of various resinous or plastic materials (to form claimed "reinforcement layer") (col. 3, lines 65-75) on one side (claimed "lower side") (Fig. 1) and embossed in order to impart a 3-dimensional design into the plastic layer and the metal layer of the coated metal sheet (Fig. 4). Kaplan does not teach an additional plastic layer on the other side of the metal sheet. However, Van Rheen teaches a removable coating that protects a substrate from foreign objects, weathering, and pollutants (col. 3-4, lines 66-2). The substrate can be selected from various metals or coated metals (col. 1, lines 16-18) and is useful for various applications such as the manufacture of vehicles and building materials (col. 1, lines 36-40). Regarding the ease of removal, see Table VI where

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various polymers are tested for ease of removal from aluminum (col. 17, lines 9-38) by hand peeling the films (col. 12, lines 53-55). The table shows films with a high ease of removal when hand peeled from the substrate indicating that the film was loosely bonded to the substrate. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to practice the method of Kaplan and apply a removable polymer coating on the uncoated side of the metal sheet because Van Rheenen states that applying a removable polymer coating on a metal substrate protects the substrate.

Claims 49-50:

These properties are assumed to be inherent to the references cited as identical materials deposited in the same fashion are expected to have the same properties such as dimensionally stability and flexibility.

Claim 51:

Kaplan provides a specific example where the plastic material forms a layer with a thickness of .03 in (.762 mm) (col. 7, lines 40-42).

8. Claims 32, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2850999 to Kaplan in view of US 6555615 to Van Rheenen in further view of US 3136676 to Fisch.

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Kaplan and Van Rheenen are discussed above but fail to teach extruding the plastic coatings or an adhesive varnish. However, Fisch teaches a method of coating an embossed metallic foil with plastic (col. 1, lines 16-18; col. 2, lines 27-36) wherein the plastic is coated onto the metallic foil by an extrusion process (col. 3, lines 7-21). Additionally, the metal foil is coated on one side with an adhesive lacquer in order to prevent wrinkling of the foil (col. 1, lines 65-68; col. 3, lines 37-44). As to when the adhesive lacquer is applied, selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results. See *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to practice the method of Kaplan and Van Rheenen and extruding the plastic compositions and applying an adhesive lacquer on the metal sheet because Fisch states that extruding is a conventional method for deposition a plastic coating and applying an adhesive lacquer prevents wrinkling.

9. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 2850999 to Kaplan in view of US 6555615 to Van Rheenen in further view of US 4997505 to Ibsen et al.

Kaplan and Van Rheenen are discussed above but fail to teach a protective varnish on a side of the metal strip prior to embossing. However, Ibsen teaches a process for surface coating metal sheet material with one or more layers of lacquer (col. 1, lines 8-18) prior to embossing in order to provide hardness and wear resistance (protective

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properties) (col. 1, lines 35-49). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to practice the method of Kaplan and Van Rheenen and provide a lacquer coating on one side of the metal sheet because Ibsen states that doing so provides hardness and wear resistance.

10. Claims 31, 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2850999 to Kaplan in view of US 6555615 to Van Rheenen in further view of US 4253597 to Waffner et al.

Kaplan and Van Rheenen are discussed above but fail to teach passing the aluminum through a loop-like arrangement after embossing and before attaching the reinforcement layer. However, Waffner teaches that it has long been known that the feeding of web material, such as fragile sheeting, from an input to an output is best accomplished by permitting a loose loop to form in the web between the inlet and the outlet (col. 1, lines 5-11). With such a loop, the web will not be damaged if there are changes in the relative infeed and outfeed speeds of the web (col. 1, lines 10-13). As to when the embossing and applying the reinforcement layer takes place, selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results. See *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to practice the method of Kaplan and Van Rheenen and include a loose loop between embossing and extrusion coating because Waffner states that it is desirable to do so for a fragile web to prevent damage.

11. Claims 36, 52-53 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 2850999 to Kaplan in view of US 6555615 to Van Rheenen in further view of US 4253597 to Waffner et al in further view of US 1856928 to Pannier.

Kaplan, Van Rheenen and Waffner are discussed above but fail to teach the upper layer stopping during the embossing process. However, Pannier teaches a stamping method for embossing a metal sheet (col. 1, lines 1-4) wherein a pair of embossing dies (claimed "upper stamp" and "lower stamp") are used to emboss metal sheets (col. 1, lines 17-28) by bringing the sheet between the dies, operating upon the sheet (claimed "stopped during embossing"), then shifting the sheet (col. 3, lines 59-65). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the embossed rollers of Kaplan, Van Rheenen and Waffner with the embossing dies of Pannier because Pannier states that such embossing dies are suitable for embossing metal.

12. Claim 47-48 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 2850999 to Kaplan in view of US 6555615 to Van Rheenen in further view of US 4402778 to Goldsworthy.

Kaplan and Van Rheenen are discussed above but fail to teach adding fibers to the plastic layer. However, Goldsworthy teaches a method for continuous production of a reinforced laminate (abstract) wherein metallic sheets are laminated with fiber-



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containing reinforced plastic useful in construction applications (col. 1, lines 58-64).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the plastic layer of Kaplan and Van Rheenen by adding fibers because Goldsworthy states that fiber-containing plastic results in a laminate having lower cost than other, similar construction materials (col. 1, lines 58-64).

Claim 48:

The fibers are glass fibers (Goldsworthy, col. 9, lines 15-36).

### ***Response to Arguments***

13. Applicant's arguments, filed 4/21/11, with respect to the rejection(s) of claim(s) under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of further search and claim amendments.

14. Applicant argues that Kaplan does not teach a thin metal strip which is embossed and then coated. The Examiner agrees and notes that claim 29 has been amended to no longer require that the metal strip is embossed prior to coating with the reinforcement layer and additional plastic layer.

### ***Conclusion***

15. No Claims are allowed. All pending claims are rejected for the reasons set forth above.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEX ROLLAND whose telephone number is (571)270-5355. The examiner can normally be reached on Monday through Friday, 9:00 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Cleveland can be reached on (571)272-1418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Frederick J. Parker/  
Primary Examiner, Art Unit 1715

/ALEX ROLLAND/  
Examiner, Art Unit 1792